

Hybex[®] Microarray Chamber User Guide

» Read This Section *First*

Handling Arrays and Racks

Look closely at the construction of the rack that holds the arrays. Slides are inserted into four pairs of spring clips on the sides of the rack. Holding a test slide at its ends with thumb and forefinger, insert it into the spring clips. Practice this a few times. Slides should insert smoothly and be gently held by the clips.

Maintaining System Humidity

Maintaining a good seal between chamber cover and base is essential to performance. The chamber base o-ring and the edge of the cover that seals against it must be free of debris or damage to provide an effective seal and maintain humidity in the chamber. The o-ring and chamber cover edge should be inspected and wiped clean with a Kimwipe or other lint-free paper towel before each use. Take care not to damage the cover sealing edge when not in use. Lastly, be sure to pipet 1 ml of water into the cover pad before use to prevent samples from drying out.



Do not preheat the heating unit or chambers before use.

Proper Use of the Heating Unit

Turn on power and set temperature only *after* inserting the chambers into the unit. Two chambers must be used, surrounding the temperature probe in the middle of the heating unit, to ensure accurate temperature control.

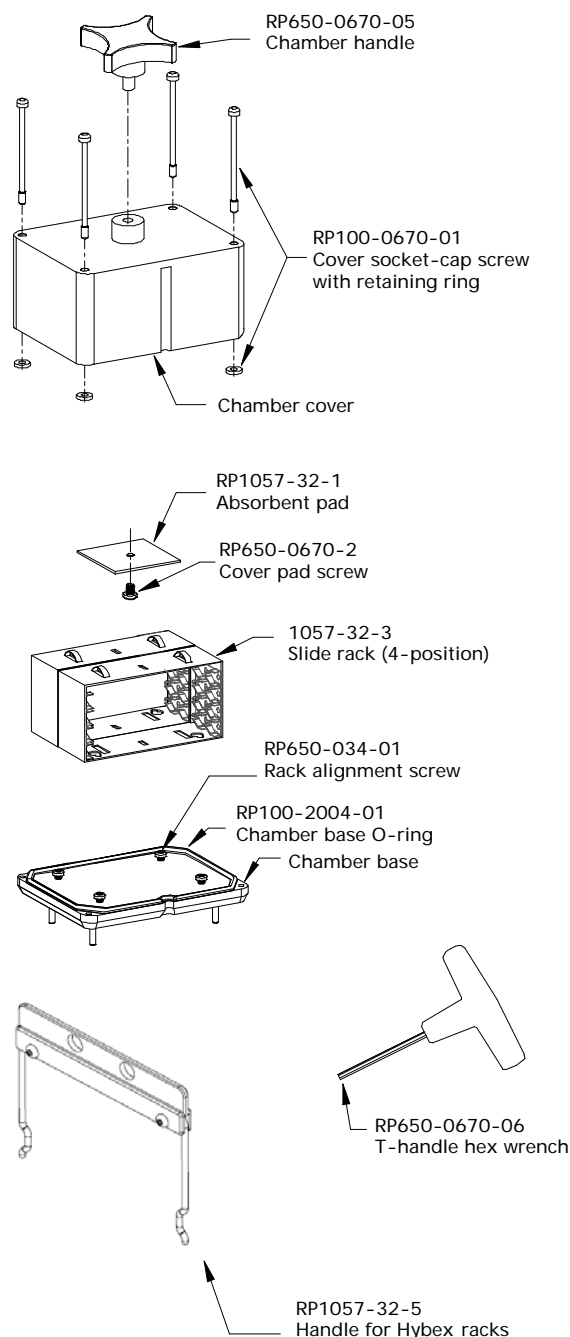
Replacing Absorbent Pad, Cleaning and Storage

Chamber cover (with absorbent pad removed), chamber base (with o-ring in place) and racks should be washed in warm water with mild detergent, rinsed with dH₂O and dried using a lint-free cloth. Do not use organic solvents that may damage the o-ring or finish. When not in use, insert racks into the chambers, loosely assemble cover and base, place in a Ziploc bag and store in a safe location.

The absorbent pad in the chamber cover should be replaced when it appears worn. Unscrew the nylon screw and discard the worn pad. With the cover turned over, position a new pad so its mounting hole is above the threaded hole in the cover. Secure the pad to the cover with the nylon screw using a Phillips screwdriver. *Do not over tighten.*

» Identify System Components

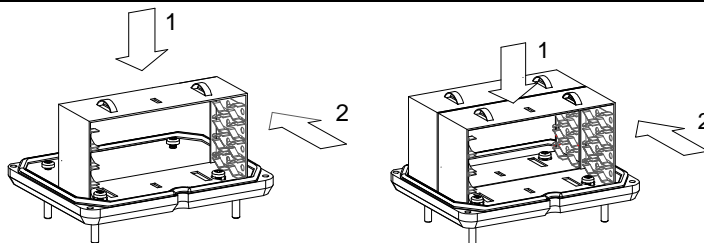
Use the illustration below to identify system components:



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» Step 1. Insert Rack(s) Into Chamber Base

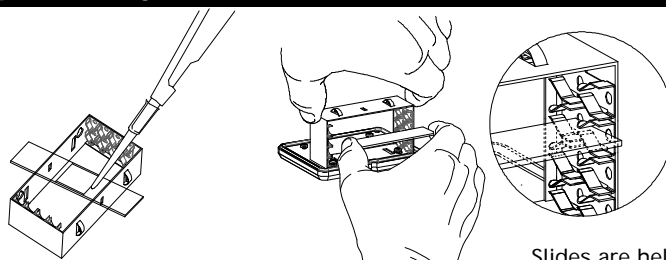
Place a slide rack on the chamber base so the two screw heads come through the key holes. Move rack toward the center of the base to secure and then rotate base 180° and add a second rack, if needed.



» Step 2. Prepare and Insert Coverslipped Arrays into Rack(s)

Prepare coverslipped arrays using your desired volume of target/probe solution and hybridization buffer. Keeping the slide level, and holding it at its ends, slowly and evenly push the slide into one set of side clips all the way into the rack.

As an aid for pipetting and handling, place the array across an extra rack as shown so the ends are easy to grab.



Place array on extra rack when pipetting.

Hold slide by the ends and insert into rack.

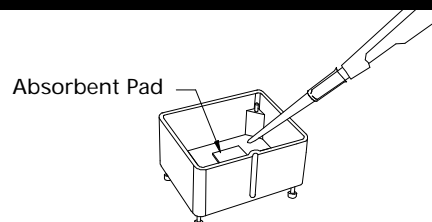
Slides are held in place by spring clips.



Failure to insert the slide completely into the rack will interfere with the chamber cover.

» Step 3. Add Water to Cover Pad

Invert the chamber cover with absorbent pad in place and add 1 ml of dH₂O. Allow liquid to soak completely into the pad.

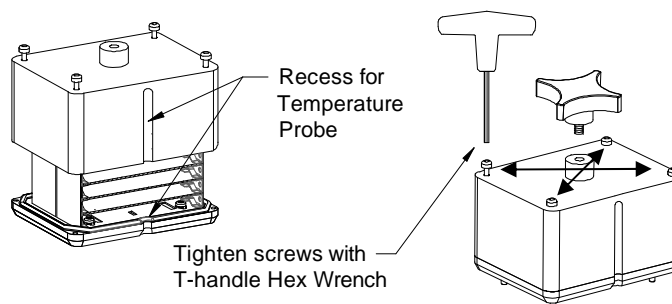


» Step 4. Attach Chamber Cover to Base

Place the chamber cover, with water impregnated pad in place, onto the base by aligning the recess for the temperature probe.

Use the T-handle hex wrench to tighten the four corner screws on the cover. Tighten the first screw a half turn, then move to the screw diagonally across and tighten a half turn. Continue with the opposite corners. Repeat until wrench stops, or hand tight.

Do not over tighten.



Recess for Temperature Probe

Tighten screws with T-handle Hex Wrench

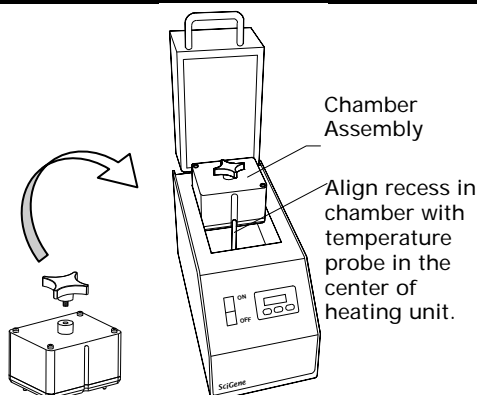
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» Step 5. Attach Handle to Chamber & Insert into Heating Unit

Screw the chamber handle into the top of the assembled chamber. Carefully lift the chamber, keeping it level, and insert it into the heating unit by aligning the recess for the temperature probe. Unscrew the handle and lower the heated lid.



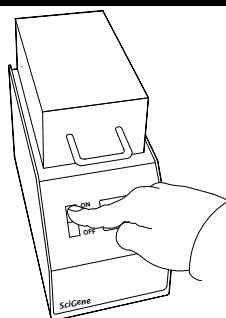
The heating unit must have two chambers inserted for proper operation.



» Step 6. Turn on Power and Set Temperature

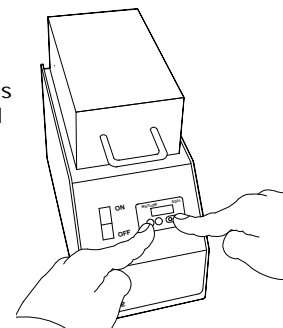
Turn the power switch on the front of the heating unit to the ON position. Select the desired temperature by pressing the up and down buttons while holding in the SET button.

The unit will attain the desired temperature and stabilize in a few minutes.



After inserting two chambers, turn on power.

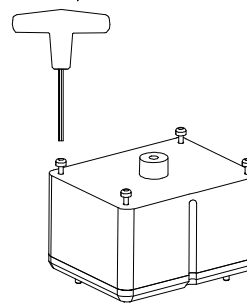
Hold in the SET key and use the UP/DOWN buttons to set the desired temperature.



» Step 7. Remove and Disassemble the Chamber

At the conclusion of the desired incubation time, screw the handle into the top of the chamber a few turns and carefully lift it from the unit. Unscrew the cover screws and lift the cover from the base.

If the chamber remains adhered to the base, use the flat edge of a small screwdriver to gently separate the cover from the base.



Use the T handle hex wrench to remove corner screws.

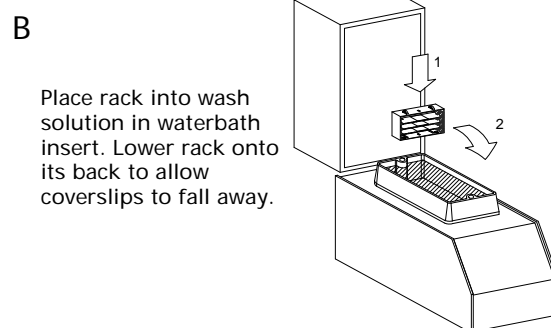
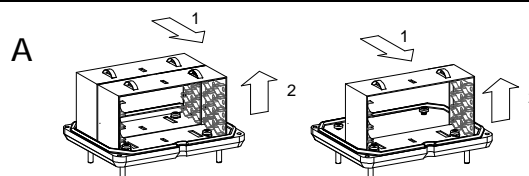
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» Step 8. Removing and Handling the Rack(s)

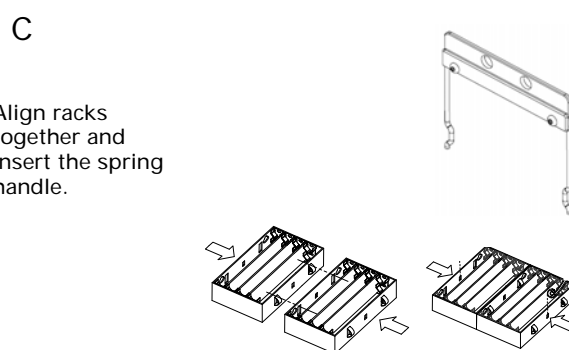
(A) Slide the rack(s) toward the edge of the base and lift to release.

(B) Move the slide rack(s) immediately to a waterbath insert (Cat. #1057-35-0) inside a second Hybex heating unit or to another preheated container of wash solution. Lay each rack on its back to allow the coverslips to fall away from the slides and exit through the bottom of the rack.

(C) With racks submerged, align the two semicircular tabs on the side of one rack with the corresponding slots on the opposite side of the second rack. Insert the spring handle (Cat. #RP1057-32-5) into the center slots on the long side of the racks. The handle will hold two racks together while processing.



Place rack into wash solution in waterbath insert. Lower rack onto its back to allow coverslips to fall away.



Align racks together and insert the spring handle.

Ordering Information

| Cat. # | Description | UOM |
|---------------|--|---------|
| 1057-36-1 | Hybex Microarray Incubation System, 115V. <i>Complete System.</i> | Each |
| 1057-36-2 | Hybex Microarray Incubation System, 230V. <i>Complete System.</i> | Each |
| 1057-30-0 | Hybex Microsample Incubator, base, 115V. <i>Heating base only.</i> | Each |
| 1057-30-2 | Hybex Microsample Incubator, base, 230V. <i>Heating base only.</i> | Each |
| 1057-31-0 | PCR Tube Block, Holds 96x0.2 mL tubes or single plate. | Each |
| 1057-33-0 | 0.6ml Tube Heat Block, Holds 60x0.6 mL tubes. | Each |
| 1057-34-0 | 1.5ml Tube Heat Block, Holds 32x1.5 mL microcentrifuge tubes. | Each |
| 1057-35-0 | Waterbath Insert, 625 mL. | Each |
| 1057-38-0 | Hybex Microarray Chamber Kit. <i>Includes 2 Chambers, Racks And Tools.</i> | Each |
| 1057-32-3 | Slide Rack, Holds 4 Slides. | Each |
| RP1057-32-1 | Absorbent Pads For Chamber Cover. | 25/Pack |
| RP1057-32-5 | Handle For Hybex Slide Racks. | Each |
| RP650-0670-06 | T-Handle Hex Wrench. | Each |
| 1051-52-0 | Digital Thermometer. <i>Includes Cable and NIST certificate.</i> | Each |

Send orders to Fax (408) 733-7336 or custserv@scigene.com